

**Slope-Intercept Form**

The **slope** of a line containing two points,  $P_1$  and  $P_2$ , whose coordinates are  $(x_1, y_1)$  and  $(x_2, y_2)$ , is given by:

$$\text{Slope} = m = \frac{y_2 - y_1}{x_2 - x_1}, \quad x_2 \neq x_1$$

To find the **y-intercept (b)**, let  $x = 0$ .

$$8x - 2y = -6$$

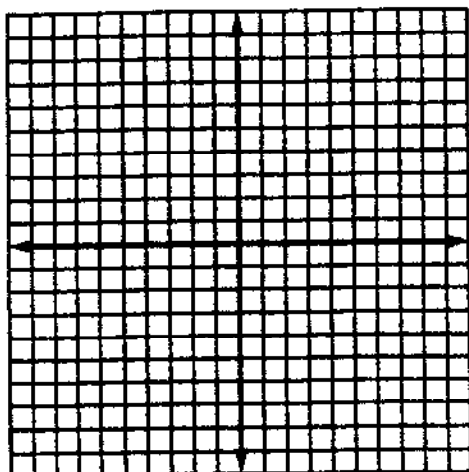
$$y = 4x + 3$$

$$m = \frac{4}{1} \begin{matrix} \text{(up)} \\ \text{(to right)} \end{matrix}$$

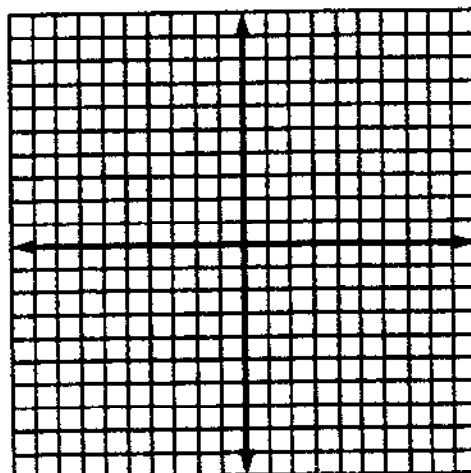
$$b = 3$$

Solve for  $y$ , state the  $m$  and  $b$ , and graph.

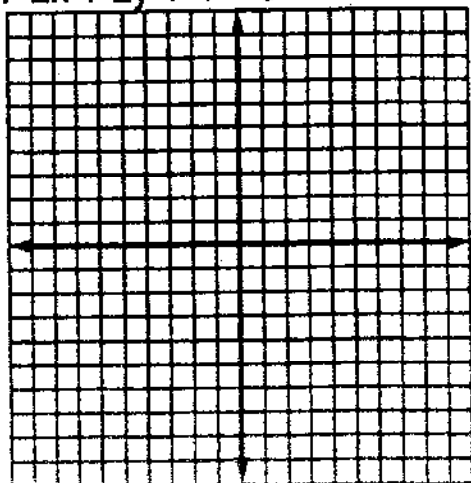
1.  $5x + y = -10$



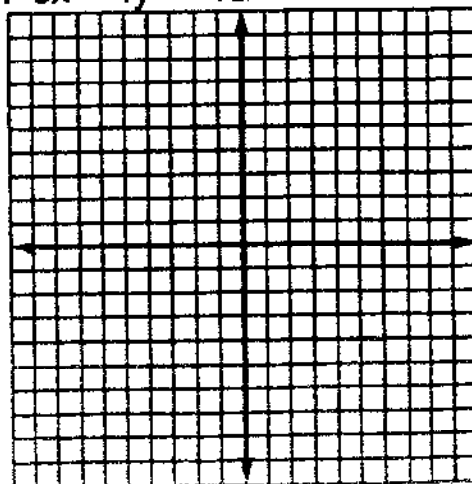
2.  $y - 4x = 8$



3.  $2x + 2y + 4 = 0$



4.  $3x - 4y = -12$



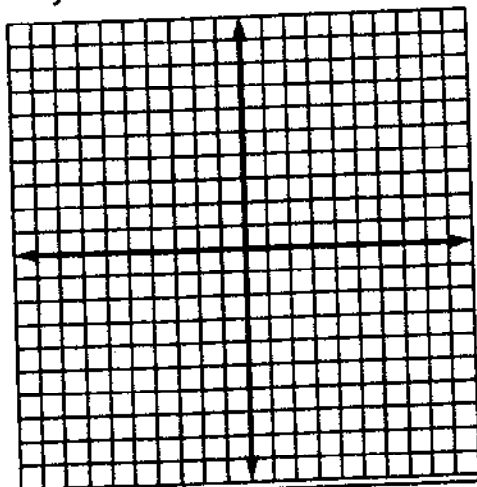
Name: \_\_\_\_\_

Graphing

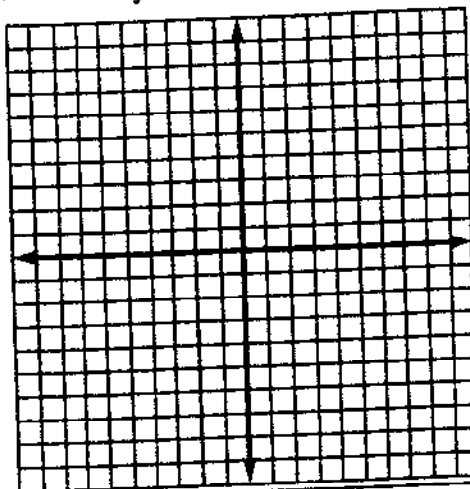
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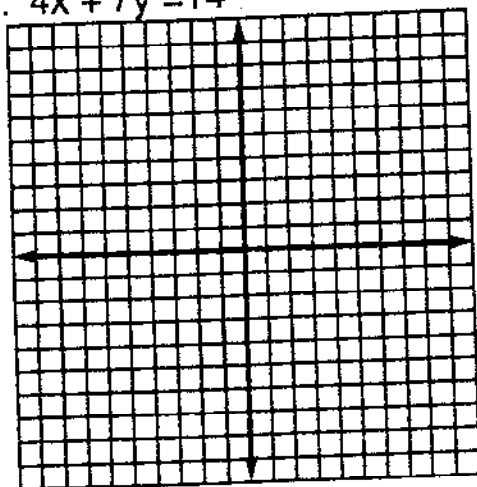
1.  $3y = 4x - 12$



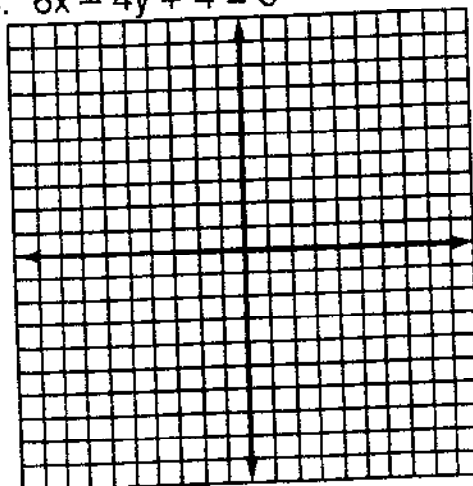
2.  $6x - 6y = 12$



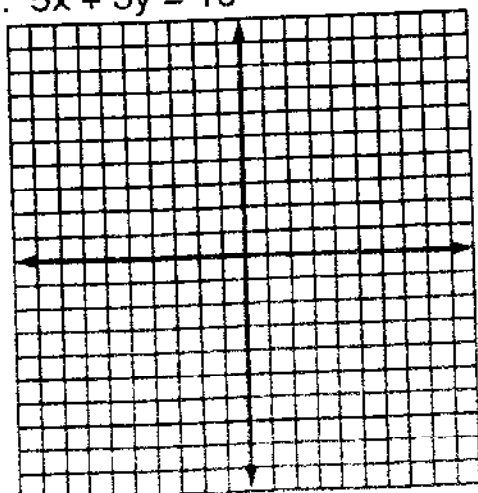
3.  $4x + 7y = 14$



4.  $6x - 4y + 4 = 0$



5.  $5x + 3y = 18$



6.  $4x - 6y + 8 = 14$

